

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,983,360 B2  
APPLICATION NO. : 09/943586  
DATED : January 3, 2006  
INVENTOR(S) : Neal Andrew Crook et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Delete the title page and substitute therefor the attached title page.

Replace informal drawing sheet 1 with the attached formal drawing sheet 1.

Replace informal drawing sheet 2 with the attached formal drawing sheet 2.

Replace informal drawing sheet 3 with the attached formal drawing sheet 3.

FIG. 4, decision box 418, change "none" to -- no data --.

Replace informal drawing sheet 4 with the attached formal drawing sheet 4.

This certificate supersedes Certificate of Correction issued September 18, 2007.

Signed and Sealed this

Twenty-third Day of October, 2007



JON W. DUDAS  
*Director of the United States Patent and Trademark Office*

(12) United States Patent  
Crook et al.

(10) Patent No.: US 6,983,360 B2  
(45) Date of Patent: Jan. 3, 2006

(54) PROGRAM LOADING MECHANISM,  
THROUGH A SINGLE INPUT DATA PATH

(75) Inventors: Neal Andrew Crook, Reading (GB);  
James Peterson, Portland, OR (US)

(73) Assignee: Micron Technology, Inc., Boise, ID  
(US)

(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 737 days.

(21) Appl. No.: 09/943,586

(22) Filed: Aug. 30, 2001

(65) Prior Publication Data

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(51) Int. Cl.

G06F 9/445 (2006.01)

G06F 9/24 (2006.01)

(52) U.S. Cl. .... 712/229; 712/225; 712/227

(58) Field of Classification Search .... 712/225;  
712/227, 229; 717/177, 178; 709/221, 222;  
710/10, 14; 380/249

See application file for complete search history.

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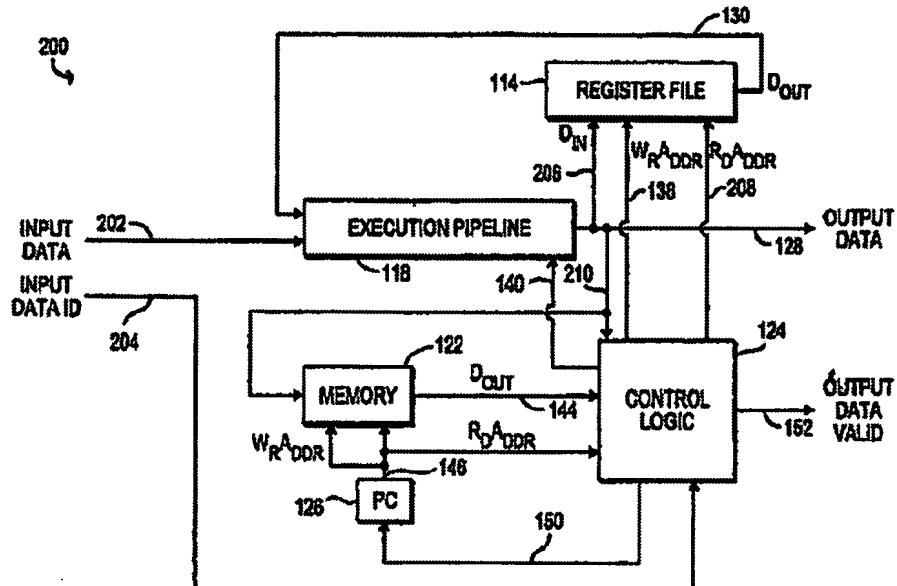
Primary Examiner—Daniel H. Pan

(74) Attorney, Agent, or Firm—Fish & Neave IP Group of  
Ropes & Gray LLP; Evelyn C. Mak

(57) ABSTRACT

Pieces of input data, which can be either setup data or program data with an associated identifier, are provided to a processing engine through a single input data path. After a system initially resets, the processing engine runs in setup mode. When an identifier for setup data is detected, input data is passed unchanged through an execution pipeline to control logic, which executes a setup program. The setup program loads a program counter, a memory, a register file counter, and a register file. When an identifier for program data is detected, the processing engine automatically switches to run mode and input data is processed in the execution pipeline. The processing engine automatically switches between run mode and setup mode depending on the identifier. Using a single input data path decreases hardware complexity and allows input data to be processed without external control logic.

34 Claims, 4 Drawing Sheets

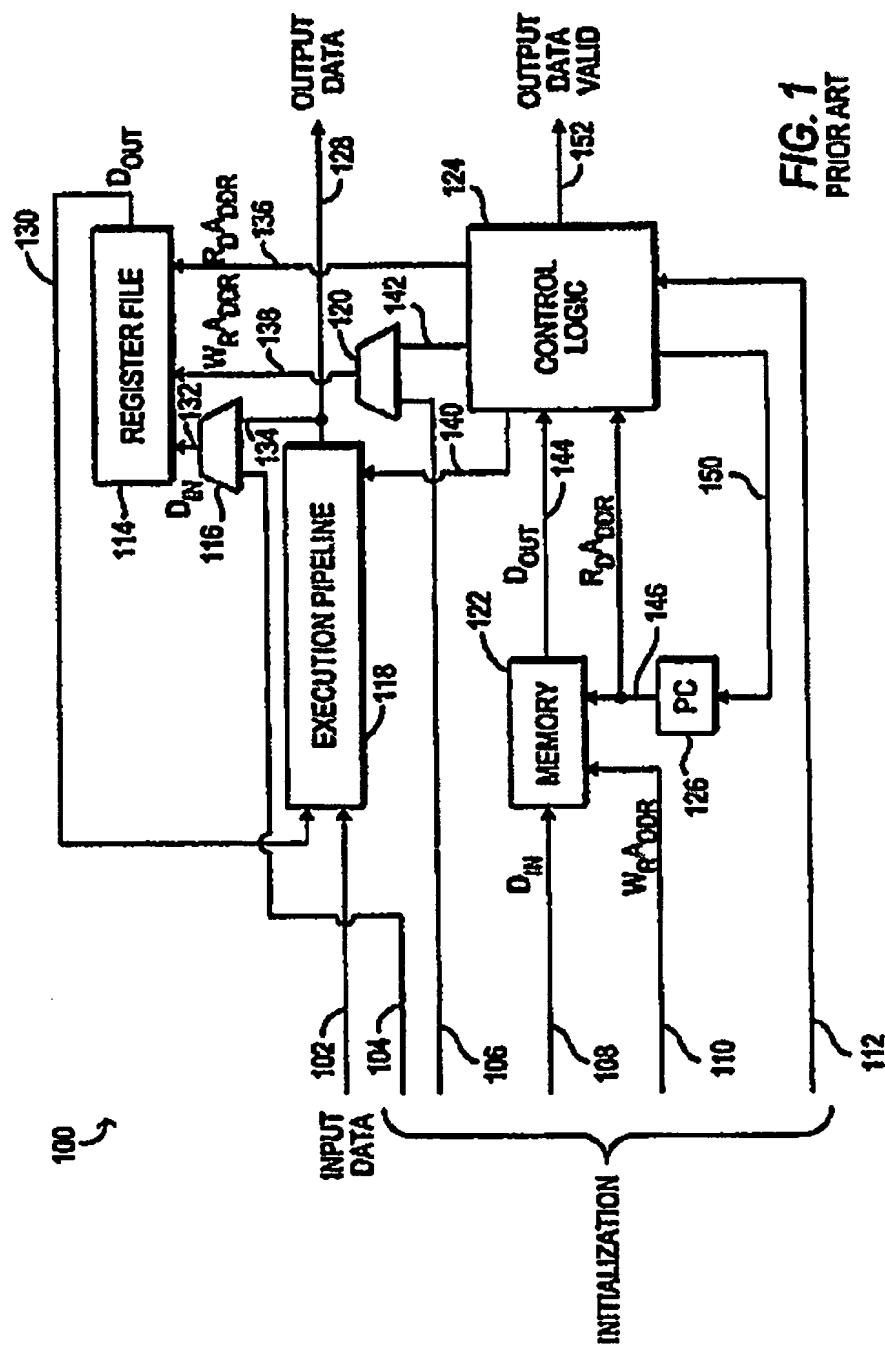


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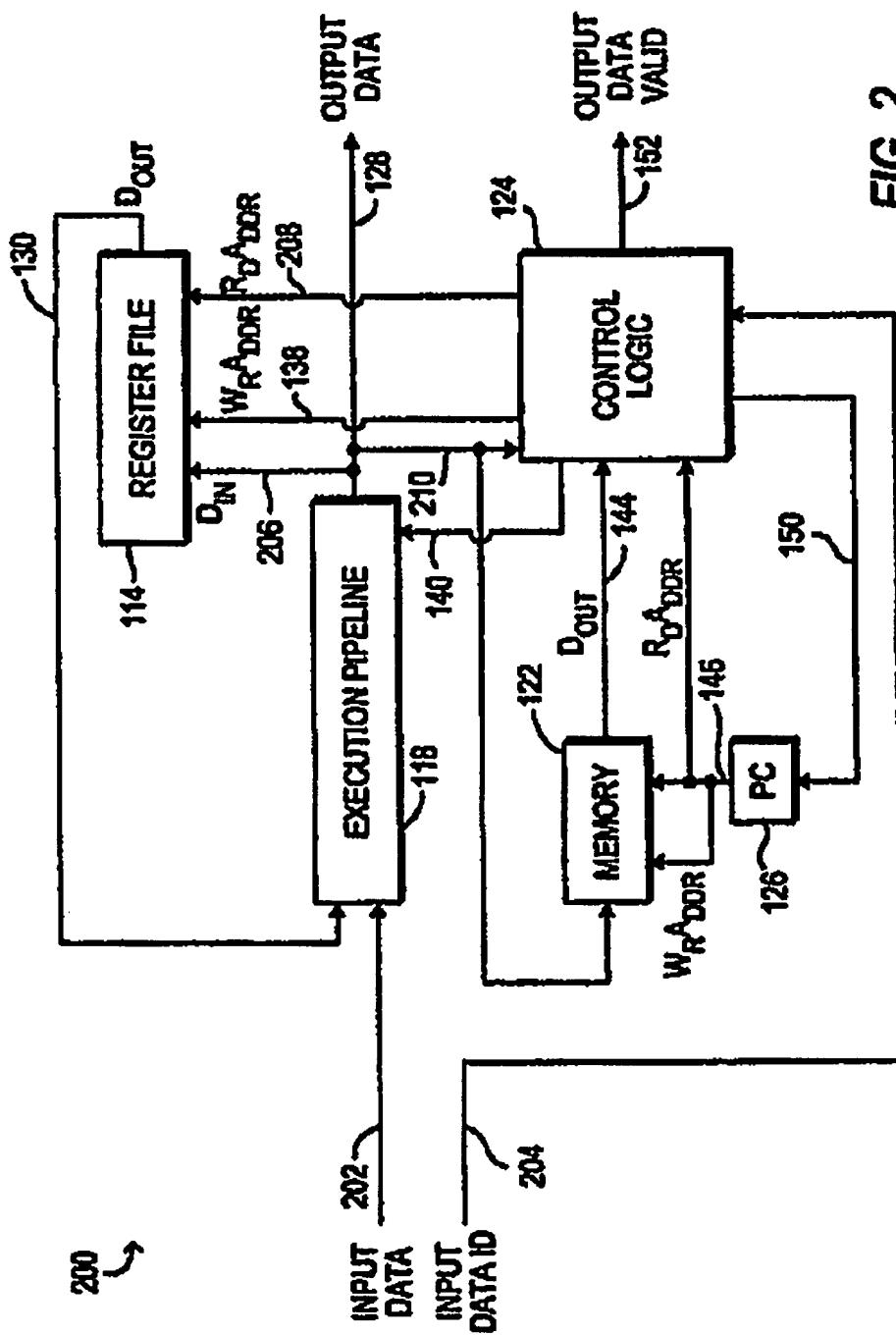


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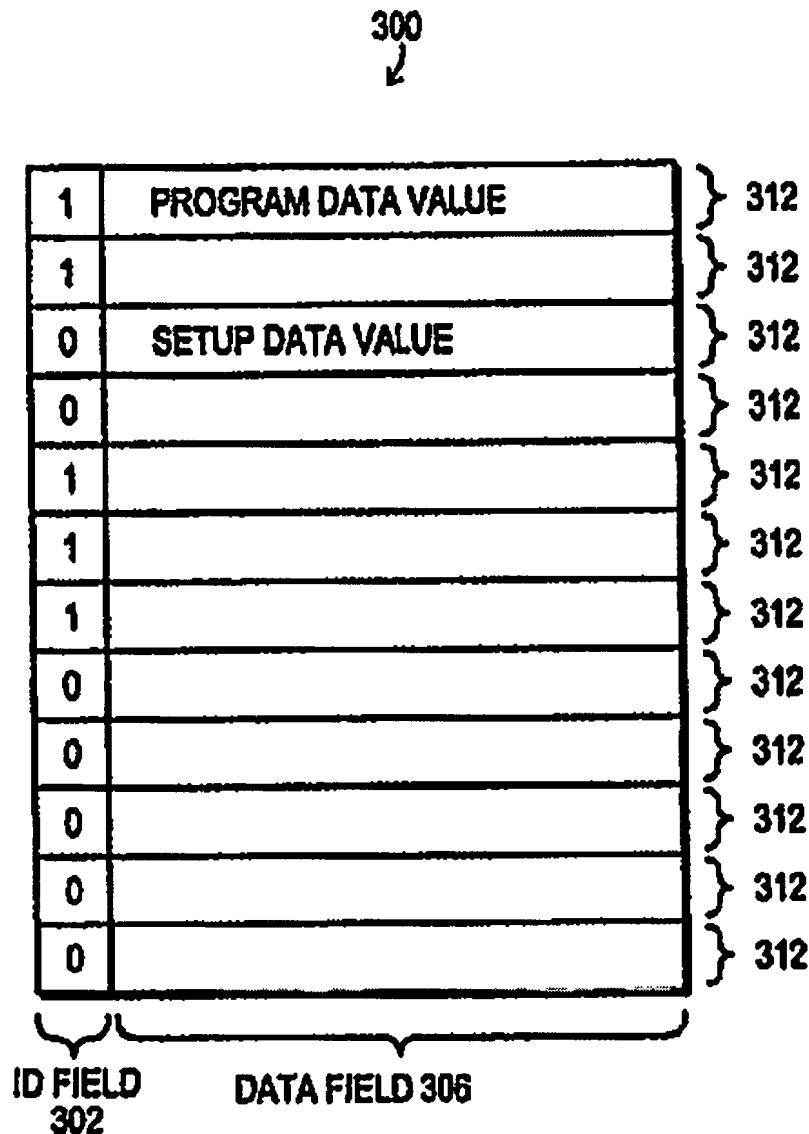


FIG. 3

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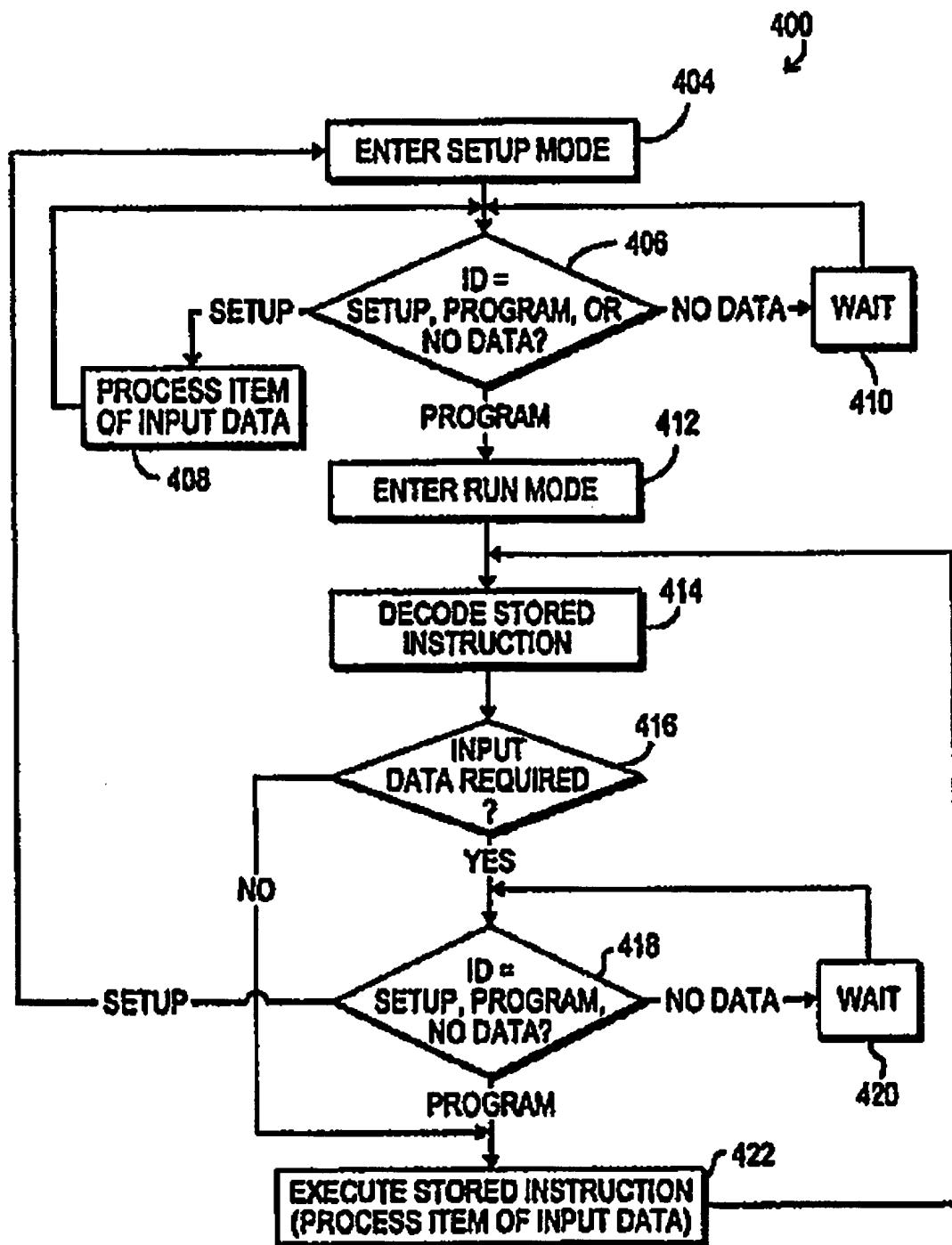


FIG. 4